

3. REMARKS

RESPONSE TO CLAIM REJECTIONS:

The Examiner rejected Claims 1, 2, 5-10 and 13-16 under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 5,947,805 issued to Van Osenbruggen ("Osenbruggen"). The Examiner states:

Van Osenbruggen discloses the method for manufacturing a rotatable cutting blade including: selecting a cutting blade holder made of a first material and having a plurality of cutting blade channels, inserting a piece of a second material, bonding each said piece of second material, sharpening said pieces, and brazing with a solder along substantially the entire length of the cutter blade channel.

Applicant respectfully traverses the rejection of Claims 1, 2, 5-10 and 13-16, as amended, as being anticipated by Osenbruggen. Osenbruggen describes a grinding mechanism having teeth, typically made of a second material that are inserted in recesses cut in the edge (face) of the disk (Osenbruggen col. 9, lines 37-40). Further, the teeth on the grinder in Osenbruggen are such that the cutting portion is in the plane of the cutter disk. Additionally, the invention disclosed in Osenbruggen is intended for grinding, and not for use as a cutting mechanism, and it is intended that the teeth on the grinder be used for rubbing or abrading, and not for use as a knife edge (Osenbruggen col. 2, lines 26-29).

The present invention discloses a blade for cutting extruded material having blades made of a second material that are inserted in cutting blade channels that extend across the full width of the periphery of the blade holder at an angle, with the cutting edge of the blade extending out beyond the face of the cutting blade holder. Osenbruggen provides a method of securing the

blade on the face of the cutting blade holder that utilizes the natural properties of the cutting blade materials, such as carbide. Carbide-based materials are very strong when in their compressed state. By placing the blade in a recess with a back edge that is higher than the side edges, the end of the blade opposite the grinding portion is compressed against the back edge of the recess during grinding actions. Use of the blade to grind when the blade is in a compressed state provides greater strength and an increased resistance to the blade being sheared off of the blade holder. The present invention, in contrast, provides cutting edges that extend beyond the plane of the cutting blade holder. The cutting edge has no opposite edge that is compressed against another surface; indeed, the edge opposite the cutting edge can extend out beyond the opposite face of the cutting blade holder.

The exact position and angle of the blade is determined by the angle of the slot in the cutting blade holder that will hold the cutting blade. Nothing in Osenbruggen describes an invention wherein the cutting blade extends beyond the face of the cutting blade holder side plane, or an invention in which the cutting blade has a cutting face that does not have an opposite edge that is not positioned such that it can be compressed against another surface to improve the cutting characteristics of the blade. Nor does anything in Osenbruggen describe an invention wherein the position of the blade and its angle relative to the cutting blade holder or product being cut is determined by the angle at which the slot is made in the cutting blade holder. Therefore, Claims 1 and 9, as amended, effectively overcome the 35 U.S.C. §102(b) anticipation by Osenbruggen, and Claims 1 and 9 should therefore be allowed to issue. Because Claims 2, 6-8, 10, and 14-16 depend from independent claims 1 or 9, these claims also effectively overcome the the 35 U.S.C. §102(b) anticipation by Osenbruggen, and Claims 2, 6-8, 10, and 14-16 should therefore also be allowed to issue.

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The Examiner rejected Claims 1, 2, 4, 6, 9, 10, 12 and 14 under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 5,054,354 issued to Kubis ("Kubis"). The Examiner states:

Kubis discloses the method for manufacturing a rotatable cutting blade including selecting a cutting blade holder made of a first material and having a plurality of cutting blade channels, inserting a piece of a second material and bonding each said piece of a second material.

Applicant respectfully traverses the rejection of Claims 1, 2, 4, 6, 9, 10, 12 and 14, as amended, as being anticipated by Kubis. Kubis describes a saw blade having teeth, typically made of a second material that are inserted in channels. However, the teeth are not just bonded into the channels, but secured using a pin or an insert to wedge the teeth in place in shaped channels that correspond to the shape of the blades (Kubis, col. 4, lns 11-17). Further, the teeth on the saw blade in Kubis are such that the cutting portion is in the plane of the saw blade at the periphery of the blade holder. In the present invention, the cutting edges of the blades extend beyond the face of the blade, and the position of the blade with respect to the cutting blade holder is determined by the angle of the slot in which the cutting blade is positioned.

Nothing in Kubis describes an invention wherein the cutting blade extends beyond the face of the cutting blade holder side plane, or an invention in which the cutting blade has a cutting face that does not have an opposite edge that is not positioned such that it can be compressed against another surface to improve the cutting characteristics of the blade. Nor does anything in Kubis describe an invention wherein the position of the blade and its angle relative to the cutting blade holder or product being cut is determined by the angle at which the slot is made in the cutting blade holder. Therefore, Claims 1 and 9, as amended, effectively overcome the

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35 U.S.C. §102(b) anticipation by Kubis, and Claims 1 and 9 should be allowed to issue. Because Claims 2, 4, and 6 depend from Claim 1 and Claims 10, 12 and 14 depend from Claim 9, these claims should also be allowed to issue.

The Examiner rejected Claims 3 and 11 under 35 U.S.C. §103(a) as being anticipated by Osenbruggen in view of US Patent No. 6,488,456 to Satran et al. ("Satran"). The Examiner states:

Van Osenbruggen discloses the method for manufacturing a rotatable cutting blade substantially as claimed except for a material with a coefficient of thermal expansion less than 0.000007 inch/degree F. However, Satran teaches the use of a material with a coefficient of thermal expansion for the purpose of rigidly affixing two parts. It would have been obvious to one having ordinary skill in the art ... to have modified Van Osenbruggen's device by providing the material with the coefficient of thermal expansion as taught by Satram in order to obtain the insert rigidly affixed to the blade holder.

Applicant has cancelled claims 3 and 11 from consideration in the present application. Therefore, the Examiner's rejection of Claims 3 and 11 under 35 U.S.C. §103(a) as being anticipated by Osenbruggen in view of Satran is believed to no longer be relevant.

The Examiner rejected Claims 4 and 12 under 35 U.S.C. §103(a) as being anticipated by Osenbruggen in view of Kubis. The Examiner states:

Van Osenbruggen discloses the method for manufacturing a rotatable cutting blade substantially as claimed except for molding process. However, Kubis

teaches the use of a molding process for the purpose of obtaining a high level of dimensional accuracy. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Van Osenbruggen's device by providing the molding process as taught by Kubis in order to obtain a high level of dimensional accuracy for the blade holder.
holder.

Applicant respectfully traverses this rejection of Claims 4 and 12 as being unpatenable over Osenbruggen in view of Kubis. As explained above, both Osenbruggen and Kubis disclose inventions wherein the cutting or grinding mechanism is in the plane of the cutting blade holder, while the present invention utilizes cutting blades that extend beyond the plane defined by the faces of the cutting blade holder.

Molding of plastic, resin or other materials is a method of making a blade body that was not unique to Kubis or Osenbruggen (Kubis, col 4 lns 11-13; Osenbruggen, cols 12, lns 16-19), and was known and commonly used in the industry, as was the use of mild or carbon steel for making a blade body (Kubis, col 4 lns 8-9; Osenbruggen col. 12 lns 7-16). Further, in the present invention, use of molding as a method of making the blade body is not for the purpose of achieving a high level of dimensional accuracy, such as disclosed in Kubis, but is simply one inexpensive method of making the blade body. Although both Kubis and Osenbruggen teach an improved saw blade wherein cutting or grinding blades of a harder material are attached to a blade holder made of steel or a molded material that is less expensive than the material used for the blades, it would not have been obvious to a person having ordinary skill in the art to modify the saw blade of Kubis to include angled slots around the periphery of the cutting blade holder so that the cutting blades can extend out beyond the plane of the face of the cutting blade holder in light of the teachings of Osenbruggen; therefore, it would further not have been obvious to make molded blade bodies.

Applicant has amended Claims 1 and 9 by adding the language of dependent Claims 5 and 13, respectively to assert sharpening the blades, and further amended Claims 1 and 9 to more clearly describe the insertion of blades that extend beyond the face of the blade holder into angled slots cut around the periphery of the blade holder. Therefore, Claims 1 and 9, as amended, and consequently Claims 4 and 12, which depend therefrom effectively overcome the 35 U.S.C. §103(a) obviousness rejection based on Osenbruggen in light of Kubis, and therefore Claims 4 and 12 should be allowed to issue.

In light of the factors discussed above, it is respectfully requested that the rejection of Claims 1, 2, 6-10, and 14-16 under 35 U.S.C. 102(b) as being anticipated by Osenbruggen and Claims 1, 2, 4, 6, 9, 10, 12 and 14, under 35 U.S.C. 102(b), as being anticipated by Kubis be reconsidered and withdrawn, as amended Claims 1 and 9 are clearly novel, and the remaining claims depend from independent claims 1 or 9. It is further respectfully requested that the rejection of Claims 4 and 12 under 103(a) as being unpatentable over Osenbruggen in view of Kubis be reconsidered and withdrawn, as amended Claims 1 and 9 are clearly distinguishable from and patentable over the cited references, and therefore dependent Claims 4 and 12 are also distinguishable from and patentable over the cited references.

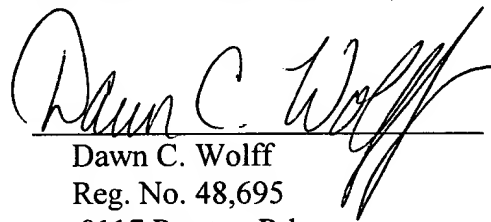
Applicant has now made an earnest attempt to place this application in condition for allowance. Therefore, Applicant respectfully requests, for the reasons set forth herein and for other reasons clearly apparent, full allowance of Claims 1 (as amended), Claims 2, 4, 6, 7 (as amended), 8, 9 (as amended), 10, 12, 14, 15 (as amended)16, and 17-20 (new), so that the application may be passed to issue.

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Enclosed is a check in the amount of \$55 for a one month extension of time for filing this response, and a Petition for the Extension of Time. Applicant does not believe any additional fees are due; however, in the event that any additional fees are due, the Commissioner is hereby authorized to charge any required fees due (other than issue fees), and to credit any overpayment made, in connection with the filing of this paper to Deposit Account No. 50-2180 of Paul Storm, P.C. Should the Examiner have any questions or desire clarification of any sort, or deem that any further amendment is desirable to place this application in condition for allowance, the Examiner is invited to telephone the undersigned at the number listed below.

Respectfully submitted,

STORM & HEMINGWAY, L.L.P.

A handwritten signature in dark ink, appearing to read "Dawn C. Wolff", is written over a horizontal line.

Dawn C. Wolff
Reg. No. 48,695
8117 Preston Rd.
Ste. 460
Dallas, TX 75225
(214) 292-8996
Fax: (214) 292-8999

Date: 12-31-03